

Application: 09/813,
Atty Docket: 10001844-1

Response to Action
dated 12/06/01

A3
8. (Amended) The printed circuit board of claim 7, wherein said epoxy is one of the family of Bisphenol-A epoxies mixed with an amine hardner.

Sub 11
11. (Amended) The printed circuit board of claim 1, wherein the subsequently-applied coating comprises:

a layer of dielectric coating that conformingly coats exposed surfaces of the printed circuit board including the filler material, the dielectric coating formed of a low viscosity material that facilitates accurate application of the dielectric coating using a spray atomized technique, wherein at least one of the one or more cavity openings is sufficiently large to prevent the dielectric coating from bridging across the cavity opening without the presence of the filler material.

Sub 12
12. (Amended) A printed circuit board comprising:

a printed wiring board;

a plurality of components having a device body mounted on said printed wiring board to form one or more regions of the printed circuit board having a highly variable and cavitations surface including a plurality of cavities defined by an series of component leads, the component body adjacent the series of leads, and a portion of the printed wiring board below the series of leads, wherein each cavity includes a plurality of openings to the surface of the printed circuit board; and

a layer of non-electrically-conductive filler material conformingly adhered to printed circuit board surfaces in the one or more regions to provide a contoured, contiguous filler material surface having gradual transitions, wherein the filler material bridges across the cavity openings and at least partially infills the cavities.

A5
14. (Amended) The printed circuit board of claim 12, wherein said filler material is an epoxy.

Sub 14
15. (Amended) The printed circuit board of claim 14, further comprising:

a low viscosity, high adherence dielectric coating that, when applied and ppcured, covers predetermined portions of said printed circuit board including at least a portion of the one or more regions coated with said filler material, wherein the filler material

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Sub 14
prevents the dielectric coating from entering the plurality of cavities.

16. (Amended) The printed circuit board of claim 15, further comprising:

a conductive coating covering said dielectric coating and portions of the printed circuit board not covered by the dielectric coating, wherein the dielectric coating and the conductive coating form a conformal EMI shield that adheres to and conforms with the printed wiring board surfaces.

Please add the following new claims 20 and 21:

claims 20-21
29/8326
WT 5/13/02
20. (New) A method for manufacturing a printed circuit board comprising the steps of:
providing the printed wiring board;

mounting a plurality of components on the printed wiring board, wherein at least one cavity having an opening to the surface of the printed circuit board is formed;

applying a high viscosity, non-electrically-conductive filler-material to said at least one cavity such that said filler material bridges across the opening of the cavity and at least partially infills the cavity so as to provide a contoured, contiguous filler surface over the at least one cavity; and

applying one or more layers of a low viscosity, high adherence dielectric coating to predetermined portions of said printed circuit board including said at least one cavity.

21. (New) The method of claim 20, further comprising:

applying a low viscosity conductive coating over said dielectric coating and portions of said printed circuit board not covered by said dielectric coating,

wherein said dielectric coating and said conductive coating form a conformal EMI shield that adheres to and conforms with the printed wiring board surfaces.